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| 09/712,790      | 11/14/2000  | Charles A. Eldering  | T721-10             | 8882             |

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EXPANSE NETWORKS, INC.  
6206 KELLERS CHURCH ROAD  
PIPERSVILLE, PA 18947

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| EXAMINER |
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SHELEHEDA, JAMES R

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| ART UNIT | PAPER NUMBER |
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2614

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/712,790

**Applicant(s)**

ELDERING ET AL.

**Examiner**

James Sheleheda

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/15/01, 8/21/01, 6/11/02, 12/10/02, 1/3/03,
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 7, 8, 10-21, 24-39, 47-52 and 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zigmond et al. (Zigmond) (6,698,020) in view of Doherty (US2003/0200128A1).

As to claim 1, Zigmond discloses a method of selectively inserting different advertisements into a stream of television programming (column 4, lines 7-15) at different receiving nodes of a communications network (households receiving broadcast television signals; column 7, lines 13-36), said method comprising the steps of:

(1) transmitting a stream of television programming from a head end (Fig. 3, content provider, 50) to a plurality of receiving nodes (households, 56 receiving broadcast signals; column 7, lines 1-12);

(2) storing advertisements at a node of said network (storing ads in ad repository, 86; Fig. 5, column 15, lines 24-34);

(4) determining at each of said receiving nodes (through a received trigger), one or more intervals in said stream within which said advertisements may be inserted (column 15, lines 35-44);

(6) inserting said advertisement into said stream at said receiving node within said determined interval (column 15, lines 57-65).

While Zigmond discloses information determining the next advertisement to inserted (selection criteria; Fig. 6, step 110), corresponding to a subset of said plurality of receiving nodes (corresponding to a particular viewer; column 11, lines 35-49) and in response to said determination retrieving the next advertisement (Fig. 6, step 110; column 17, lines 23-32),

he fails to specifically disclose storing a queue, said queue comprising an ordered list of advertisement resource locators (ARLs), each of said ARL's comprising data disclosing a location of a corresponding advertisement and retrieving from said queue one of said ARLs in accordance with said order.

In an analogous art, Doherty discloses a system for displaying targeted advertising (Fig. 1; paragraph 25, lines 1-6) wherein a scheduler (140, Fig. 1) will assemble an ordered list (the schedule; paragraph 29) of references (or ARLs) pointing to advertisements (paragraph 28, lines 3-7 and paragraph 29), based upon advertisement priorities (paragraph 40), to determine the order in which advertisements are to be displayed (paragraph 38) for the typical benefit of providing a stored schedule which can help ensure that advertisements are properly prepared for output at their assigned times (paragraph 28, lines 1-11 and paragraph 38, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Zigmond's system to include storing a queue, said queue comprising an ordered list of advertisement resource locators (ARLs), each of

said ARLs comprising data disclosing a location of a corresponding advertisement and retrieving from said queue one of said ARLs in accordance with said order, as taught by Doherty, for the typical benefit of promoting efficient advertisement delivery by ensuring that advertisements are properly prepared for output at their assigned times.

As to claim 19, Zigmond discloses a method of selectively inserting advertisements from a first source (column 8, lines 65-67) into a stream of television programming (column 4, lines 7-15) at a receiving node of a communications network (household receiving broadcast television signals; column 7, lines 13-36), said method comprising the steps of:

(1) receiving said stream of television programming at said receiving node (households, 56 receiving broadcast signals; column 7, lines 1-12) from a headend of said network (Fig. 3, from content provider, 50; column 7, lines 1-12);

(2) storing said advertisements at a node of said network (storing ads in ad repository, 86; Fig. 5, column 15, lines 24-34);

(4) determining, at said receiving node (through a received trigger), avails in said media stream within which said advertisements may be inserted (column 15, lines 35-44);

(7) inserting said advertisement into said stream at said receiving node within said determined interval (column 15, lines 57-65).

While Zigmond discloses information determining the next advertisement to inserted (selection criteria; Fig. 6, step 110) and in response to said determination retrieving the next advertisement (Fig. 6, step 110; column 17, lines 23-32),

he fails to specifically disclose storing a queue, said queue comprising an ordered list of advertisement resource locators (ARLs), each of said ARL's comprising data disclosing a location of a corresponding advertisement and retrieving from said queue one of said ARLs in accordance with said order.

In an analogous art, Doherty discloses a system for displaying targeted advertising (Fig. 1; paragraph 25, lines 1-6) wherein a scheduler (140, Fig. 1) will assemble an ordered list (the schedule; paragraph 29) of references (or ARLs) pointing to advertisements (paragraph 28, lines 3-7 and paragraph 29), based upon advertisement priorities (paragraph 40), to determine the order in which advertisements are to be displayed (paragraph 38) for the typical benefit of providing a stored schedule which can help ensure that advertisements are properly prepared for output at their assigned times (paragraph 28, lines 1-11 and paragraph 38, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Zigmond's system to include storing a queue, said queue comprising an ordered list of advertisement resource locators (ARLs), each of said ARLs comprising data disclosing a location of a corresponding advertisement and retrieving from said queue one of said ARLs in accordance with said order, as taught by Doherty, for the typical benefit of promoting efficient advertisement delivery by ensuring that advertisements are properly prepared for output at their assigned times.

As to claim 38, Zigmond discloses a method of selectively inserting insertion data (advertisements) into a data stream (column 4, lines 7-15) at a receiving node of a communications network (household receiving broadcast television signals; column 7, lines 13-36), said method comprising the steps of:

(1) receiving said data stream at said receiving node (households, 56 receiving broadcast signals; column 7, lines 1-12);

(2) storing said insertion data at a node of said network (storing ads in ad repository, 86; Fig. 5, column 15, lines 24-34);

(4) determining, at said receiving node (through a received trigger), intervals in said data stream within which said insertion data may be inserted (column 15, lines 35-44);

(7) inserting said portion of said first data (a particular ad from the total ads) into said data stream within said interval at said receiving node (column 15, lines 57-65).

While Zigmond discloses information determining the next portion of said first data (a particular advertisement) to inserted (selection criteria; Fig. 6, step 110) and in response to said determination retrieving the next portion of data (advertisement, Fig. 6, step 110; column 17, lines 23-32),

he fails to specifically disclose storing a queue, said queue comprising an ordered list of identifiers, each of said identifiers comprising data disclosing a location of a portion of said insertion data and retrieving from said queue one of said identifiers in accordance with said order.

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In an analogous art, Doherty discloses a system for displaying targeted advertising (Fig. 1; paragraph 25, lines 1-6) wherein a scheduler (140, Fig. 1) will assemble an ordered list (the schedule; paragraph 29) of references (or identifiers) pointing to advertisements (paragraph 28, lines 3-7 and paragraph 29), based upon advertisement priorities (paragraph 40), to determine the order in which advertisements are to be displayed (paragraph 38) for the typical benefit of providing a stored schedule which can help ensure that advertisements are properly prepared for output at their assigned times (paragraph 28, lines 1-11 and paragraph 38, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Zigmond's system to include storing a queue, said queue comprising an ordered list of identifiers, each of said identifiers comprising data disclosing a location of a portion of said insertion data and retrieving from said queue one of said identifiers in accordance with said order, as taught by Doherty, for the typical benefit of promoting efficient advertisement delivery by ensuring that advertisements are properly prepared for output at their assigned times.

As to claim 50, Zigmond discloses an apparatus for selectively inserting insertion data (advertisements) into a stream (column 4, lines 7-15) of television programming at a receiving node of a communications network (household receiving broadcast television signals; column 7, lines 13-36 and lines 42-49), said apparatus comprising:

a tuner circuit (inherently present to tune to broadcast channels) coupled to receiving a media stream (households, 56 receiving broadcast signals; column 7, lines



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1-12) and output an extracted channel from said stream (receiving and outputting tunable channels; column 13, line 14-16 and column 17, lines 21-23);

an advertisement insertion circuit (Fig. 5, ad insertion device, 80) coupled to receive said extracted channel from said tuner circuit (receiving programming, Fig. 5), said advertisement insertion circuit

(a) determining avails in said media stream within which said advertisements may be inserted (column 15, lines 35-44);

(d) inserting said advertisement into said media stream within said avail at said receiving node (column 15, lines 57-65).

While Zigmond discloses information determining the next advertisement to inserted (selection criteria; Fig. 6, step 110) and in response to said determination retrieving the advertisement (Fig. 6, step 110; column 17, lines 23-32),

he fails to specifically disclose storing a queue, said queue comprising an ordered list of identifiers, each of said identifiers comprising data disclosing a location of a portion of said insertion data and retrieving from said queue one of said identifiers in accordance with said order.

In an analogous art, Doherty discloses a system for displaying targeted advertising (Fig. 1; paragraph 25, lines 1-6) wherein a scheduler (140, Fig. 1) will assemble an ordered list (the schedule; paragraph 29) of references (or identifiers) pointing to advertisements (paragraph 28, lines 3-7 and paragraph 29), based upon advertisement priorities (paragraph 40), to determine the order in which advertisements are to be displayed (paragraph 38) for the typical benefit of providing a stored schedule

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which can help ensure that advertisements are properly prepared for output at their assigned times (paragraph 28, lines 1-11 and paragraph 38, lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Zigmond's system to include storing a queue, said queue comprising an ordered list of identifiers, each of said identifiers comprising data disclosing a location of a portion of said insertion data and retrieving from said queue one of said identifiers in accordance with said order, as taught by Doherty, for the typical benefit of promoting efficient advertisement delivery by ensuring that advertisements are properly prepared for output at their assigned times.

As to claim 2, Zigmond and Doherty disclose wherein said stream includes indicators that identify the start of an avail (encoded trigger signal; see Zigmond at column 15, lines 45-52) in said stream for insertion of an advertisement (see Zigmond at column 15, lines 35-37) and wherein step (4) comprises detecting said indicators (see Zigmond at column 15, lines 57-61) and wherein step (6) comprises inserting said advertisement into said avail (see Zigmond at column 15, lines 57-61).

As to claim 7, Zigmond and Doherty disclose wherein said queues are stored locally at said receiving nodes to which they correspond (wherein a local scheduler creates and stores the schedule; see Doherty at Fig. 1 and paragraph 29).

As to claim 8, Zigmond and Doherty disclose wherein step (1) comprises receiving a plurality of channels of television programming (see Zigmond at column 7, lines 1-12 and 14-28) and selecting one of said channels (the currently tuned program channel; see Zigmond at column 13, lines 14-39 and column 15, lines 45-49) and

wherein step (4) comprises detecting said avails in said selected channel (triggers in the current channel; see Zigmond at column 15, lines 45-52) and step (6) comprises inserting said advertisements in said avails in said selected channel (inserting ads into the current monitored stream; see Zigmond at column 15, lines 57-65).

As to claim 10, Zigmond and Doherty disclose storing said advertisements at said receiving node (ad repository, 86 in ad insertion device 80; see Zigmond at Fig. 5, column 15, lines 24-34).

As to claim 11, Zigmond and Doherty disclose selling locations in said queues to third parties (wherein third party advertisers contract to have their ads inserted to consumers; see Zigmond at column 8, lines 22-29).

As to claim 12, Zigmond and Doherty disclose selling locations in said queues to advertisers (wherein third party advertisers contract to have their ads inserted to consumers; see Zigmond at column 8, lines 22-29).

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As to claim 13, Zigmond and Doherty disclose selling locations in said queue (selling a predetermined number of ad exposures; see Zigmond at column 8, lines 22-29) based at least partially on a repetition rate within said queue of said sold locations (wherein the ad is repeated a set number of times within a given time period; see Zigmond at column 13, lines 40-45).

As to claim 14, Zigmond and Doherty disclose wherein said repetition rate is non-linear (wherein the ad is blocked after a set number of presentations, which stops the ad from repeating at the same rate, to prevent frustration from viewers; column 13, lines 40-47).

As to claim 15 and 34, Zigmond and Doherty disclose recording a portion of said stream for subsequent playback (see Zigmond at column 3, lines 9-12 and column 14, lines 1-12).

As to claim 16 and 35, Zigmond and Doherty disclose inserting said advertisements into said stream as it is being recorded (wherein the system inserts ads into the received stream being recorded whenever the indicator appears; see Zigmond at column 14, lines 1-12 and column 15, lines 45-65).

As to claim 17 and 36, Zigmond and Doherty disclose inserting said advertisements into said stream when it is played back (replacing older ads with newer ones in the recorded material; see Zigmond at column 14, lines 1-12).

As to claim 18 and 37, Zigmond and Doherty disclose inserting said advertisements into said stream (the current video stream being received and displayed) between the time it is recorded and the time it is played back (when a program is recorded and played back at a later time, such as the next day, the system would be continuing to insert ads into the received video stream during that time period; see Zigmond at column 17, lines 21-32).

As to claim 20, Zigmond and Doherty disclose wherein said stream includes indicators that identify the start of an avail (encoded trigger signal; see Zigmond at column 15, lines 45-52) and wherein step (4) comprises detecting said indicators (see Zigmond at column 15, lines 57-61).

As to claims 21 and 52, while Zigmond and Doherty disclose wherein said stream of media comprises digital data (digital signals uplinked to satellite; see Zigmond at column 17, lines 50-63) and an indicator (encoded signal; see Zigmond at column 4, lines 39-41), they fail to specifically disclose wherein said indicator comprises a digital cue tone.

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The examiner takes official notice that it is notoriously well known in the art to utilize digital cue tones, such as provided by the DVS-253 standard, for the typical benefit of inserting advertisements into a digital stream utilizes an established standard means.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Zigmond and Doherty's system to include the use of a digital cue tone for the typical benefit of providing a means for digital ad insertion which utilizes a common well-known means to indicate an ad insertion point.

As to claim 24, Zigmond and Doherty disclose wherein said order of said queue is based on at least numerical order of ARLs within said queue (wherein the schedule lists the numerical order in which the next ads are displayed in; see Doherty at Fig. 6 and paragraph 52).

As to claim 25, Zigmond and Doherty disclose  
determining at least one characteristic of a viewer of said television programming (viewer habits stored within viewer and system information, 80; see Zigmond at column 10, lines 40-47); and

ordering said queue based at least partially on said viewer determination (wherein the ad selection is based upon the viewer and system information, 80; see Zigmond at column 11, lines 42-49).

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As to claim 26, Zigmond, Doherty and Bhagavath disclose ordering said queue in accordance with an algorithm that takes into consideration a prediction of a characteristic of the viewer based on the content of the stream (wherein a viewer of a certain program type is predicted to have certain interests; see Zigmond at column 12, lines 47-54 and column 1, lines 27-36) prior to said interval (the current program being viewed when the ad is inserted; see Zigmond at column 12, lines 47-54).

As to claim 27, Zigmond and Doherty disclose determining the time of day that an avail is determined (determining the current time of day at which the ad is being inserted; see Zigmond at column 13, lines 59-67); and

ordering said queue based at least partially on said time of day (wherein the ad selection is based upon the time of day; see Zigmond at column 13, lines 59-67).

As to claim 28, Zigmond and Doherty disclose wherein said queue is stored at said receiving node (wherein a local scheduler creates and stores the schedule; see Doherty at Fig. 1 and paragraph 29).

As to claim 29, Zigmond and Doherty disclose wherein said receiving node is a set top box (see Zigmond at column 10, lines 23-25).

As to claim 30, Zigmond and Doherty disclose wherein step (1) comprises receiving a plurality of channels of television programming (see Zigmond at column 7, lines 1-12 and 14-28) and selecting one of said channels for forwarding to a television monitor (the currently tuned program channel being displayed; see Zigmond at column 13, lines 14-39 and column 15, lines 45-49) based on commands received from a television viewer (wherein the viewer controls channel changing; see Zigmond at column 9, lines 23-28 and column 13, lines 14-19) and

wherein step (4) comprises detecting said avails in said selected channel (triggers in the current channel; see Zigmond at column 15, lines 45-52).

As to claim 31, Zigmond and Doherty disclose receiving at said receiving node said ARLs via said network (wherein all of the ads and ad related material are received via the network; see Zigmond at column 12, lines 15-32 and column 15, lines 12-17).

As to claim 32, Zigmond and Doherty disclose receiving at said receiving node instructions (selection rules and parameters; see Zigmond at column 11, lines 66-67 and column 12, lines 1-14 and lines 25-32) dictating how to order said ARLs in said queue (dictating the selection of advertisements; see Zigmond at column 11, lines 35-49); and

wherein step (3) further comprises ordering said queue in accordance with said instructions (wherein the queue is ordered based upon instructions concerning when and how the ads should be played; see Doherty at paragraph 40).



As to claim 33, Zigmond and Doherty disclose storing said advertisements at said receiving node (ad repository, 86 in ad insertion device 80; see Zigmond at Fig. 5, column 15, lines 24-34).

As to claim 39, Zigmond and Doherty disclose wherein said stream includes indicators that identify the start of an interval (encoded trigger signal; see Zigmond at column 15, lines 45-52) and wherein step (4) comprises detecting said indicators (see Zigmond at column 15, lines 57-61).

As to claim 47, Zigmond and Doherty disclose wherein step (1) comprises receiving a plurality of data streams (see Zigmond at column 7, lines 1-12 and 14-28) and selecting one of said channels for forwarding to a monitor (the currently tuned program channel being displayed; see Zigmond at column 13, lines 14-39 and column 15, lines 45-49) and

wherein step (4) comprises detecting said intervals in said selected channel (triggers in the current channel; see Zigmond at column 15, lines 45-52).

As to claim 48, Zigmond and Doherty disclose receiving at said receiving node said portions of insertion data (the advertisements) via said network (column 15, lines 12-17).

As to claim 49, Zigmond and Doherty disclose receiving at said receiving node instructions (selection rules and parameters; see Zigmond at column 11, lines 66-67 and column 12, lines 1-14 and lines 25-32) dictating how to order said portions of insertion data in said queue (dictating the selection of advertisements; see Zigmond at column 11, lines 35-49); and wherein step (3) further comprises ordering said queue in accordance with said instructions (wherein the queue is ordered based upon instructions concerning when and how the ads should be played; see Doherty at paragraph 40).

As to claim 51, Zigmond and Doherty disclose wherein said media stream includes indicators that identify the start of an avail (encoded trigger signal; see Zigmond at column 15, lines 45-52) and wherein said advertisement insertion circuit comprises circuitry for detecting said indicators (switching decision unit, 88; see Zigmond at column 15, lines 57-61).

As to claim 56, Zigmond and Doherty disclose wherein said apparatus is a set top box (see Zigmond at column 10, lines 23-25).

As to claim 57, Zigmond and Doherty disclose an ARL retrieval circuit coupled to receive ARLs network (wherein all of the ads and ad related material are received via the network; see Zigmond at column 12, lines 15-32 and column 15, lines 12-17) and adapted to store said ARLs in said queue in a

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predetermined order (wherein the references are stored in the schedule based upon predetermined instructions concerning when and how the ads should be played; see Doherty at paragraph 40).

As to claim 58, Zigmond and Doherty disclose wherein said advertisement retrieval circuit is further coupled to receive instructions (selection rules and parameters; see Zigmond at column 11, lines 66-67 and column 12, lines 1-14 and lines 25-32) dictating how to order said ARLs in said queue (wherein the instructions dictate which ads are selected and when; see Zigmond at column 11, lines 35-49) and adapted to store said ARLs in an order in accordance with said instructions (wherein the queue is ordered based upon instructions concerning when and how the ads should be played; see Doherty at paragraph 40).

As to claim 59, Zigmond and Doherty disclose  
a memory for storing said advertisements locally (ad repository, 86 in ad insertion device 80; see Zigmond at Fig. 5, column 15, lines 24-34);

an advertisement retrieval circuit (video switch, 90; see Zigmond at Fig. 5) coupled to receive advertisements (see Zigmond at column 15, lines 57-65) corresponding to said ARLs stored in said queue (according to the prepared schedule; see Doherty at paragraph 28, lines 3-7 and paragraph 29),

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3. Claims 3-6, 9, 22, 23, 40-46 and 53-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zigmond and Doherty as applied to claims 2, 20, 39 and 51 above, and further in view of Bhagavath et al. (Bhagavath) (6,505,169).

As to claims 3, 22 and 40, while Zigmond and Doherty disclose an indicator for an upcoming avail and an ARL corresponding to an advertisement, they fail to specifically disclose identifying a duration of said avail and identifying a duration of said advertisement.

In an analogous art, Bhagavath discloses a system for insertion advertisements into media (column 1, lines 65-67 and column 2, lines 1-10) which will provide media metadata (Fig. 10) indicating intervals when ads are to be inserted and the duration of the ad interval (column 6, lines 44-48) and ad metadata (Fig. 9A) defining a duration of an ad (column 6, lines 25-31) and wherein a particular ad is chosen by comparing the two types of data (column 6, lines 18-24) for the typical benefit of ensuring that a selected ad will fit into a particular ad slot.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to include identifying a duration of said avail and identifying a duration of said advertisement, as taught by Bhagavath, for the typical benefit of selecting an advertisement of appropriate duration for any particular ad slot.

As to claims 4, 23 and 41, Zigmond, Doherty and Bhagavath disclose wherein said order of said ARLs in said queue is based at least partially on said duration of said advertisements relative to said duration of avails detected in said stream (based upon a

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comparison of an ad duration and an ad slot duration; see Bhagavath at column 6, lines 18-21, 29-31 and 44-48).

As to claim 5, Zigmond, Doherty and Bhagavath disclose

(7) determining at least one characteristic of a viewer of said television programming (determining user preferences; see Zigmond at column 11, lines 13-19 and lines 24-30); and

(8) ordering said queue based at least partially on said viewer determination (wherein the ad selections are based upon the viewer data; see Zigmond at column 11, lines 13-19 and lines 42-49).

As to claim 6, Zigmond, Doherty and Bhagavath disclose

ordering said queue in accordance with an algorithm that takes into consideration a prediction of a characteristic of the viewer based on the content of the stream (wherein a viewer of a certain program type is predicted to have certain interests; see Zigmond at column 12, lines 47-54 and column 1, lines 27-36) prior to said interval (the current program being viewed when the ad is inserted; see Zigmond at column 12, lines 47-54).

As to claim 9, Zigmond, Doherty and Bhagavath disclose

receiving at said receiving node instructions (selection rules and parameters; see Zigmond at column 11, lines 66-67 and column 12, lines 1-14 and lines 25-32) dictating

how to order said ARLs in said queue (dictating the selection of advertisements; see Zigmond at column 11, lines 35-49); and

wherein step (3) further comprises ordering said queue in accordance with said instructions (wherein the queue is ordered based upon instructions concerning when and how the ads should be played; see Doherty at paragraph 40).

As to claim 42, Zigmond, Doherty and Bhagavath disclose wherein:

predicting at least one characteristic of a viewer of said stream (predicting user characteristics based on viewing habits; see Zigmond at column 11, lines 13-19 and lines 24-30); and

ordering said queue based on said viewer prediction (wherein the ad selections are based upon the viewer data; see Zigmond at column 11, lines 13-19 and lines 42-49).

As to claim 43, Zigmond, Doherty and Bhagavath disclose

ordering said queue in accordance with an algorithm that takes into consideration a prediction of a characteristic of the viewer based on the actual content of the stream (wherein a viewer of a certain program type is predicted to have certain interests; see Zigmond at column 12, lines 47-54 and column 1, lines 27-36) prior to said interval (the current program being viewed when the ad is inserted; see Zigmond at column 12, lines 47-54).

As to claim 44, Zigmond, Doherty and Bhagavath disclose determining the time of day that an interval is determined (determining the current time of day at which the ad is being inserted; see Zigmond at column 13, lines 59-67); and

ordering said advertisements in said queue based at least in part on said time of day (wherein the ad selection is based upon the time of day; see Zigmond at column 13, lines 59-67).

As to claim 45, Zigmond, Doherty and Bhagavath disclose wherein said queue is stored at said receiving node (wherein a local scheduler creates and stores the schedule; see Doherty at Fig. 1 and paragraph 29).

As to claim 46, Zigmond, Doherty and Bhagavath disclose wherein said receiving node is a set top box (see Zigmond at column 10, lines 23-25).

As to claim 53, while Zigmond and Doherty disclose an indicator for an upcoming avail and an ARL corresponding to an advertisement and selecting an advertisement from the queue, they fail to specifically disclose identifying a duration of said avail and identifying a duration of said advertisement and circuitry for selecting an advertisement based at least partially on said duration of said advertisements relative to said duration of avails detected in said stream.

In an analogous art, Bhagavath discloses a system for insertion advertisements into media (column 1, lines 65-67 and column 2, lines 1-10) which will provide media metadata (Fig. 10) indicating intervals when ads are to be inserted and the duration of the ad interval (column 6, lines 44-48) and ad metadata (Fig. 9A) defining a duration of an ad (column 6, lines 25-31) and wherein a particular ad is chosen by comparing the two types of data (column 6, lines 18-24) for the typical benefit of ensuring that a selected ad will fit into a particular ad slot.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to include identifying a duration of said avail and identifying a duration of said advertisement and circuitry for selecting an advertisement based at least partially on said duration of said advertisements relative to said duration of avails detected in said stream, as taught by Bhagavath, for the typical benefit of selecting an advertisement of appropriate duration for any particular ad slot.

As to claim 54, Zigmond, Doherty and Bhagavath disclose wherein:

said apparatus further comprises a circuit for predicting at least one characteristic of a viewer of said television programming (predicting user characteristics based on viewing habits; see Zigmond at column 11, lines 13-19 and lines 24-30); and

wherein said advertisement insertion circuit (Fig. 5, ad insertion device, 80) further comprises circuitry coupled to said circuit for predicting for ordering said queue based at least partially on said viewer determination (wherein the ad selections are based upon the viewer data; see Zigmond at column 11, lines 13-19 and lines 42-49).



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As to claim 55, Zigmond, Doherty and Bhagavath disclose wherein:

said apparatus further comprises a circuit (in ad insertion device, 80) for determining the time of day that an avail is determined (determining the current time of day at which the ad is being inserted; see Zigmond at column 13, lines 59-67); and

wherein said ad insertion circuit (Fig. 5, ad insertion device, 80) further comprises circuitry coupled to said circuit for determining the time of day that an avail is determined for ordering said queue based at least partially on said time of day (wherein the ad selection is based upon the time of day; see Zigmond at column 13, lines 59-67).

### ***Conclusion***

4. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Sheleheda  
Patent Examiner  
Art Unit 2614

JS



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600